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(54) Title: A METHOD FOR IDENTIFICATION OF BIOLOGICALLY ACTIVE PEPTIDES AND NUCLEIC ACIDS

(57) Abstract

Biologically active peptides and nucleic acids are identified by a method comprising the following steps: (a) production of a pool of appropriate vectors each containing totally or partly random DNA sequences, (b) efficient transduction of said vectors into a number of identical eukaryotic cells in such a way that a single ribonucleic acid and possibly peptide is expressed or a limited number of different random ribonucleic acids and peptides are expressed by each cell, (c) screening of said transduced cells to see whether some of them have changed a certain phenotypic trait, (d) selection and cloning of said changed cells, (e) isolation and sequencing of the vector DNA in said phenotypically changed cells, and (f) deducing the ribonucleic acid and peptide sequences from the DNA sequence. The peptide sequences may be introduced into or fused to a larger protein preferably an antibody molecule or a fragment thereof. This may be obtained by introducing the random DNA sequences into or fusing them to a DNA sequence encoding such larger protein.